L Number	Hits	Search Text	DB	Time stamp
1	7992	(424/9.52 424/484 424/400 424/9.52 424/283.1 424/278.1 424/9.52 424/278.1 424/9.52 424/486 424/280.1) composition and (cationic adj pluronic$2) and (carrier diluent) and protect$4	USPAT; US-PGPUB	2003/12/08 15:15
2	7196	((424/9.52 424/484 424/400 424/9.52 424/283.1 424/278.1 424/9.52 424/278.1 424/9.52 424/486 424/280.1) composition and (cationic adj pluronic$2) and (carrier diluent) and protect$4) not (polyacrylic adj acid)	USPAT; US-PGPUB	2003/12/08 15:16
4	3989	(((424/9.52 424/484 424/400 424/9.52 424/283.1 424/278.1 424/9.52 424/278.1 424/9.52 424/486 424/280.1) composition and (cationic adj pluronic$2) and (carrier diluent) and protect$4) not (polyacrylic adj acid)) and pharmaceutical	USPAT; US-PGPUB	2003/12/08 15:16
3	23	(((424/9.52 424/484 424/400 424/9.52 424/283.1 424/278.1 424/9.52 424/278.1 424/9.52 424/486 424/280.1) composition and (cationic adj pluronic$2) and (carrier diluent) and protect$4) not (polyacrylic adj acid)) and poly$2l$1lactide	USPAT; US-PGPUB	2003/12/08 15:16
-	0	JP71l817O	EPO; JPO; DERWENT	2003/12/01 12:36
-	0	71l817O	EPO; JPO; DERWENT	2003/12/01 12:36
-	6	JP71l817O "950509"	EPO; JPO; DERWENT	2003/12/01 12:38
-	0	JP$271l817O	EPO; JPO; DERWENT	2003/12/01 12:55

-	0	01I817O	EPO; JPO; DERWENT	2003/12/01 14:35
-	4	"01104"	EPO; JPO; DERWENT	2003/12/01 14:36
-	0	GB00/01104	EPO; JPO; DERWENT	2003/12/01 14:37
-	0	GB00/001104	EPO; JPO; DERWENT	2003/12/01 15:36
-	2	alpar.in. and eyles.in.	EPO; JPO; DERWENT	2003/12/01 16:01
-	26291	pharmaceutical and (biologically adj active)	USPAT; US-PGPUB	2003/12/08 11:43
-	0	adjuvant and (cationic$4 adj pluron$4)	USPAT; US-PGPUB	2003/12/01 16:03
-	13658	adjuvant and (cationic$4)	USPAT; US-PGPUB	2003/12/08 11:44
-	1352	(adjuvant and (cationic$4)) and (block adj copolymer$1)	USPAT; US-PGPUB	2003/12/01 16:04
-	1065	((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1	USPAT; US-PGPUB	2003/12/01 16:24
-	0	(((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3)) and NH) and (p101 p121)	USPAT; US-PGPUB	2003/12/01 16:06
-	19	(pharmaceutical and (biologically adj active)) and (((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3)) and NH)	USPAT; US-PGPUB	2003/12/01 16:07
-	19	((pharmaceutical and (biologically adj active)) and ((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3))) and ((pharmaceutical and (biologically adj active)) and (((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3)) and NH))	USPAT; US-PGPUB	2003/12/01 16:23
-	0	((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3)) and 5096556.pn.	USPAT; US-PGPUB	2003/12/01 16:23
-	1	5096556.pn.	USPAT; US-PGPUB	2003/12/01 16:23
-	0	(((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and 5096556.pn.	USPAT; US-PGPUB	2003/12/01 16:24
-	0	((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3)) and 5096556.pn.	USPAT; US-PGPUB	2003/12/01 16:24
-	0	(pharmaceutical and (biologically adj active)) and 5096556.pn.	USPAT; US-PGPUB	2003/12/01 16:24
-	0	(adjuvant and (cationic$4)) and 5096556.pn.	USPAT; US-PGPUB	2003/12/01 16:25
-	127	(((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (pharmaceutical and (biologically adj active))	USPAT; US-PGPUB	2003/12/01 16:25
-	41	((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3)) and NH	USPAT; US-PGPUB	2003/12/02 07:18
-	166	(((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3)	USPAT; US-PGPUB	2003/12/02 07:19
-	1	5650155.pn.	USPAT; US-PGPUB	2003/12/02 07:20
-	0	5650155.pn. and (biological$4 with active)	USPAT; US-PGPUB	2003/12/02 07:21
-	0	5650155.pn. and (biological$4 and active)	USPAT; US-PGPUB	2003/12/02 07:21
-	0	5650155.pn. and (biological$4 near active)	USPAT; US-PGPUB	2003/12/02 07:22
-	1	5650155.pn. and (active and agent)	USPAT; US-PGPUB	2003/12/02 07:22
-	0	(5650155.pn. and (active and agent)) and ($4cationic and immunostimul$4)	USPAT; US-PGPUB	2003/12/02 07:23

-	1	(5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)	USPAT; US-PGPUB	2003/12/02 07:23
-	1	((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)	USPAT; US-PGPUB	2003/12/02 07:23
-	1	(((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)	USPAT; US-PGPUB	2003/12/02 07:24
-	0	((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and nh	USPAT; US-PGPUB	2003/12/02 07:24
-	1	((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)	USPAT; US-PGPUB	2003/12/02 07:25
-	0	(((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)) and (poly with lactide)	USPAT; US-PGPUB	2003/12/02 07:26
-	0	(((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)) and ($10lactide)	USPAT; US-PGPUB	2003/12/02 07:27
-	1	(((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)) and (administrat$4)	USPAT; US-PGPUB	2003/12/02 07:27
-	1	(((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)) and (adjuvant)	USPAT; US-PGPUB	2003/12/02 07:53
-	48	(pharmaceutical and (biologically adj active)) and ((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3))	USPAT; US-PGPUB	2003/12/02 07:40
-	0	5562910.pn	USPAT; US-PGPUB	2003/12/02 07:40
-	0	5562910$2.pn	USPAT; US-PGPUB	2003/12/02 07:41
-	67	daynes.in.	USPAT; US-PGPUB	2003/12/02 07:41
-	0	daynes.in. and (((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3)) and NH)	USPAT; US-PGPUB	2003/12/02 07:41
-	0	daynes.in. and ((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3))	USPAT; US-PGPUB	2003/12/02 07:42
-	24	((daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent)) not polyacrylic	USPAT; US-PGPUB	2003/12/02 07:43
-	73491	(((daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent)) not polyacrylic) (adjuvant immunostimul$4)	USPAT; US-PGPUB	2003/12/02 07:44
-	6	(((daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent)) not polyacrylic) and (adjuvant immunostimul$4)	USPAT; US-PGPUB	2003/12/02 07:46
-	0	((((daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent)) not polyacrylic) and (adjuvant immunostimul$4)) not (immuno$5 or agent)	USPAT; US-PGPUB	2003/12/02 07:46
-	24	(daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent)	USPAT; US-PGPUB	2003/12/02 07:47
-	41	daynes.in. and (agent$1 block surfactant$1 immun$4)	USPAT; US-PGPUB	2003/12/02 07:49

-	73	((pharmaceutical and (biologically adj active)) and ((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3))) or ((((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)) and (adjuvant)) or ((daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent))	USPAT; US-PGPUB	2003/12/02 07:53
-	49	(((pharmaceutical and (biologically adj active)) and ((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3))) or ((((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)) and (adjuvant)) or ((daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent))) and (immune with response)	USPAT; US-PGPUB	2003/12/02 07:54
-	27	(((pharmaceutical and (biologically adj active)) and ((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3))) or ((((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)) and (adjuvant)) or ((daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent))) and (adjuvant with immuno$9)	USPAT; US-PGPUB	2003/12/02 07:55
-	21	((((pharmaceutical and (biologically adj active)) and ((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3))) or ((((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)) and (adjuvant)) or ((daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent))) and (adjuvant with immuno$9)) and (block copolymer$1 surfactant$1)	USPAT; US-PGPUB	2003/12/02 07:55
-	0	(((((pharmaceutical and (biologically adj active)) and ((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3))) or ((((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)) and (adjuvant)) or ((daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent))) and (adjuvant with immuno$9)) and (block copolymer$1 surfactant$1)) and (ratio near carrier)	USPAT; US-PGPUB	2003/12/02 07:56
-	20	(((((pharmaceutical and (biologically adj active)) and ((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3))) or ((((((5650155.pn. and (active and agent)) and ($4cationic immunostimul$4)) and (carrier diluent immun$5)) and (block surfactant$1 positive$4)) and (microsphere$1 liposome$1 kda da)) and (adjuvant)) or ((daynes.in. and (agent$1 block surfactant$1 immun$4)) and (carrier diluent))) and (adjuvant with immuno$9)) and (block copolymer$1 surfactant$1)) and (ratio and carrier)	USPAT; US-PGPUB	2003/12/02 07:56

-	25	(424/9.52 424/484 424/400 424/9.52 424/278.1 424/283.1 424/9.52 424/278.1 424/9.52 424/486)and ((((adjuvant and (cationic$4)) and (block adj copolymer$1)) and surfactant$1) and (positiv$4 adj charge$3))	USPAT; US-PGPUB	2003/12/02 08:29
-	4	"20070"	EPO; JPO; DERWENT	2003/12/08 11:16
-	0	94/20070	EPO; JPO; DERWENT	2003/12/08 11:16
-	0	WO with 94/20070	EPO; JPO; DERWENT	2003/12/08 11:17
-	0	WO with ("94" adj "20070")	EPO; JPO; DERWENT	2003/12/08 11:17
-	26444	pharmaceutical and (biologically adj active)	USPAT; US-PGPUB	2003/12/08 11:43
-	13737	adjuvant and (cationic$4)	USPAT; US-PGPUB	2003/12/08 11:44
-	3073	(pharmaceutical and (biologically adj active)) and (adjuvant and (cationic$4))	USPAT; US-PGPUB	2003/12/08 11:44
-	1	((pharmaceutical and (biologically adj active)) and (adjuvant and (cationic$4))) and 10335906.rlan.	USPAT; US-PGPUB	2003/12/08 11:52
-	0	(((pharmaceutical and (biologically adj active)) and (adjuvant and (cationic$4))) and 10335906.rlan.) and 10221954.rlan.	USPAT; US-PGPUB	2003/12/08 11:53
-	1	((pharmaceutical and (biologically adj active)) and (adjuvant and (cationic$4))) and 09937065.rlan.	USPAT; US-PGPUB	2003/12/08 11:55
-	0	((pharmaceutical and (biologically adj active)) and (adjuvant and (cationic$4))) and 10221954.rlan.	USPAT; US-PGPUB	2003/12/08 11:54
-	0	((pharmaceutical and (biologically adj active)) and (adjuvant and (cationic$4))) and 09937066.rlan.	USPAT; US-PGPUB	2003/12/08 11:54
-	8	alpar.in.	USPAT; US-PGPUB	2003/12/08 11:55
-	0	somavarapu.in.	USPAT; US-PGPUB	2003/12/08 11:56
-	159	satyanarayana.in.	USPAT; US-PGPUB	2003/12/08 11:56
-	1154	somavarapu snd satyanarayana.in.	USPAT; US-PGPUB	2003/12/08 11:56
-	0	somavarapu and satyanarayana.in.	USPAT; US-PGPUB	2003/12/08 11:56
-	0	williamson-e.in.	USPAT; US-PGPUB	2003/12/08 11:57
-	0	baillie-l.in.	USPAT; US-PGPUB	2003/12/08 11:57

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=> file caplus; d que l13; d que l14; d que l15
FILE 'CAPLUS' ENTERED AT 16:34:50 ON 03 NOV 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 3 Nov 2003  VOL 139 ISS 19
FILE LAST UPDATED: 2 Nov 2003  (20031102/ED)
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This file contains CAS Registry Numbers for easy and accurate substance identification.

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L3        35606 SEA FILE=CAPLUS ABB=ON  PLU=ON  VACCINES/CT
L4         1744 SEA FILE=CAPLUS ABB=ON  PLU=ON  DRUG DELIVERY SYSTEMS/CT (L)
                VACCIN?
L6            5 SEA FILE=CAPLUS ABB=ON  PLU=ON  DELIVERY SYSTEMS (2A) PHARMACEU
                TICAL (L) VACCIN?
L9         2880 SEA FILE=CAPLUS ABB=ON  PLU=ON  MUCOUS MEMBRANE+OLD/CT
L10       50522 SEA FILE=CAPLUS ABB=ON  PLU=ON  MUCOSA
L11       14451 SEA FILE=CAPLUS ABB=ON  PLU=ON  NASAL
L12         475 SEA FILE=CAPLUS ABB=ON  PLU=ON  PROTEINS/CW (L) (S OR SURFACE)
                (W) LAYER
L13           7 SEA FILE=CAPLUS ABB=ON  PLU=ON  ((L3 OR L4) OR L6) AND L12 AND
                (L9 OR L10 OR L11)
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L3        35606 SEA FILE=CAPLUS ABB=ON  PLU=ON  VACCINES/CT
L4         1744 SEA FILE=CAPLUS ABB=ON  PLU=ON  DRUG DELIVERY SYSTEMS/CT (L)
                VACCIN?
L6            5 SEA FILE=CAPLUS ABB=ON  PLU=ON  DELIVERY SYSTEMS (2A) PHARMACEU
                TICAL (L) VACCIN?
L7        11671 SEA FILE=CAPLUS ABB=ON  PLU=ON  IMMUNOSTIMULANTS/CT
L8         1129 SEA FILE=CAPLUS ABB=ON  PLU=ON  IMMUNOPOTENTIAT?
L12         475 SEA FILE=CAPLUS ABB=ON  PLU=ON  PROTEINS/CW (L) (S OR SURFACE)
                (W) LAYER
L14           7 SEA FILE=CAPLUS ABB=ON  PLU=ON  ((L3 OR L4) OR L6) AND L12 AND
                (L7 OR L8)
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L7        11671 SEA FILE=CAPLUS ABB=ON  PLU=ON  IMMUNOSTIMULANTS/CT
L8         1129 SEA FILE=CAPLUS ABB=ON  PLU=ON  IMMUNOPOTENTIAT?
L9         2880 SEA FILE=CAPLUS ABB=ON  PLU=ON  MUCOUS MEMBRANE+OLD/CT
L10       50522 SEA FILE=CAPLUS ABB=ON  PLU=ON  MUCOSA
L11       14451 SEA FILE=CAPLUS ABB=ON  PLU=ON  NASAL
L12         475 SEA FILE=CAPLUS ABB=ON  PLU=ON  PROTEINS/CW (L) (S OR SURFACE)
                (W) LAYER
```

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L15          3 SEA FILE=CAPLUS ABB=ON  PLU=ON  (L7 OR L8) AND L12 AND (L9 OR
               L10 OR L11)


=> s l13 or l14 or l15
L68         11 L13 OR L14 OR L15

=> file medline; d que l22; d que l24; d que l27; d que l28
FILE 'MEDLINE' ENTERED AT 16:35:33 ON 03 NOV 2003

 FILE LAST UPDATED: 1 NOV 2003 (20031101/UP). FILE COVERS 1958 TO DATE.

 On April 13, 2003, MEDLINE was reloaded. See HELP RLOAD for details.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2003 vocabulary. See http://www.nlm.nih.gov/mesh/changes2003.html
 for a description on changes.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


L17       89860 SEA FILE=MEDLINE ABB=ON  PLU=ON  VACCINES+NT/CT
L18         760 SEA FILE=MEDLINE ABB=ON  PLU=ON  (SURFACE OR S) (W) (LAYER)
                AND PROTEIN
L21      108948 SEA FILE=MEDLINE ABB=ON  PLU=ON  MUCOUS MEMBRANE+NT/CT
L22           0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L17 AND L18 AND L21



L17       89860 SEA FILE=MEDLINE ABB=ON  PLU=ON  VACCINES+NT/CT
L18         760 SEA FILE=MEDLINE ABB=ON  PLU=ON  (SURFACE OR S) (W) (LAYER)
                AND PROTEIN
L20       78570 SEA FILE=MEDLINE ABB=ON  PLU=ON  DRUG DELIVERY SYSTEMS+NT/CT
L24           4 SEA FILE=MEDLINE ABB=ON  PLU=ON  L17 AND L18 AND L20



L18         760 SEA FILE=MEDLINE ABB=ON  PLU=ON  (SURFACE OR S) (W) (LAYER)
                AND PROTEIN
L19       19014 SEA FILE=MEDLINE ABB=ON  PLU=ON  ADJUVANTS, IMMUNOLOGIC/CT
L21      108948 SEA FILE=MEDLINE ABB=ON  PLU=ON  MUCOUS MEMBRANE+NT/CT
L27           0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L19 AND L18 AND L21



L18         760 SEA FILE=MEDLINE ABB=ON  PLU=ON  (SURFACE OR S) (W) (LAYER)
                AND PROTEIN
L19       19014 SEA FILE=MEDLINE ABB=ON  PLU=ON  ADJUVANTS, IMMUNOLOGIC/CT
L20       78570 SEA FILE=MEDLINE ABB=ON  PLU=ON  DRUG DELIVERY SYSTEMS+NT/CT
L28           4 SEA FILE=MEDLINE ABB=ON  PLU=ON  L19 AND L18 AND L20


=> s l24 or l28
L69           5 L24 OR L28

=> file embase; d que l36; d que l38; d que l44
FILE 'EMBASE' ENTERED AT 16:36:09 ON 03 NOV 2003
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 FILE COVERS 1974 TO 30 Oct 2003 (20031030/ED)
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EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L29        78645 SEA FILE=EMBASE ABB=ON  PLU=ON  VACCINE+NT/CT
L30          715 SEA FILE=EMBASE ABB=ON  PLU=ON  (SURFACE OR S) (W) (LAYER) AND
                 PROTEIN
L34        81146 SEA FILE=EMBASE ABB=ON  PLU=ON  MUCOSA+NT/CT
L36            0 SEA FILE=EMBASE ABB=ON  PLU=ON  L29 AND L30 AND L34


L30          715 SEA FILE=EMBASE ABB=ON  PLU=ON  (SURFACE OR S) (W) (LAYER) AND
                 PROTEIN
L31          415 SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNOLOGIC AGENT/CT
L32         1985 SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNOLOG? (2A) ADJUVANT
L34        81146 SEA FILE=EMBASE ABB=ON  PLU=ON  MUCOSA+NT/CT
L38            0 SEA FILE=EMBASE ABB=ON  PLU=ON  L30 AND L34 AND (L31 OR L32)


L29        78645 SEA FILE=EMBASE ABB=ON  PLU=ON  VACCINE+NT/CT
L30          715 SEA FILE=EMBASE ABB=ON  PLU=ON  (SURFACE OR S) (W) (LAYER) AND
                 PROTEIN
L43         1765 SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNOLOGICAL ADJUVANT/CT
L44            3 SEA FILE=EMBASE ABB=ON  PLU=ON  L29 AND L43 AND L30
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=> file biosis; d que l53; d que l57; d que l55
FILE 'BIOSIS' ENTERED AT 16:36:28 ON 03 NOV 2003
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 29 October 2003 (20031029/ED)

FILE RELOADED: 19 October 2003.
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L47       109990 SEA FILE=BIOSIS ABB=ON  PLU=ON  VACCIN?
L48          928 SEA FILE=BIOSIS ABB=ON  PLU=ON  (SURFACE OR S) (W) (LAYER) AND
                 PROTEIN
L52       111178 SEA FILE=BIOSIS ABB=ON  PLU=ON  (MUCOUS OR MUCOS?) (1A)
                 MEMBRANE OR MUCOSA?
L53            3 SEA FILE=BIOSIS ABB=ON  PLU=ON  L47 AND L48 AND L52


L51        33924 SEA FILE=BIOSIS ABB=ON  PLU=ON  DRUG (2A) DELIVERY
L56          425 SEA FILE=BIOSIS ABB=ON  PLU=ON  ((SURFACE OR S) (W) (LAYER))
                 (3W) PROTEIN
L57            0 SEA FILE=BIOSIS ABB=ON  PLU=ON  L56 AND L51


L48          928 SEA FILE=BIOSIS ABB=ON  PLU=ON  (SURFACE OR S) (W) (LAYER) AND
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              PROTEIN
L51       33924 SEA FILE=BIOSIS ABB=ON  PLU=ON  DRUG (2A) DELIVERY
L55           4 SEA FILE=BIOSIS ABB=ON  PLU=ON  L48 AND L51


=> s l53 or l55
L70           7 L53 OR L55

=> file wpid; d que 164; d que 165
FILE 'WPIDS' ENTERED AT 16:37:48 ON 03 NOV 2003
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FILE LAST UPDATED:          30 OCT 2003      <20031030/UP>
MOST RECENT DERWENT UPDATE:     200370        <200370/DW>
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L58       18806 SEA FILE=WPIDS ABB=ON  PLU=ON  VACCIN?
L59          40 SEA FILE=WPIDS ABB=ON  PLU=ON  ((SURFACE OR S) (W) (LAYER))
                (3W) PROTEIN
L63        8915 SEA FILE=WPIDS ABB=ON  PLU=ON  (MUCOUS OR MUCOS?) (1A)
                MEMBRANE OR MUCOSA?
L64           5 SEA FILE=WPIDS ABB=ON  PLU=ON  L58 AND L59 AND L63



L59          40 SEA FILE=WPIDS ABB=ON  PLU=ON  ((SURFACE OR S) (W) (LAYER))
                (3W) PROTEIN
L60         152 SEA FILE=WPIDS ABB=ON  PLU=ON  IMMUNOLOG? (2A) ADJUVANT
L61        9592 SEA FILE=WPIDS ABB=ON  PLU=ON  IMMUNOACTIV? OR IMMUNOADJUV? OR
                IMMUNOPOTENT? OR IMMUNOSTIM? OR IMMUNOMODUL?
L65           5 SEA FILE=WPIDS ABB=ON  PLU=ON  (L60 OR L61) AND L59


=> s l64 or l65
L71           8 L64 OR L65

=> dup rem l69 l68 l44 l70 l71
FILE 'MEDLINE' ENTERED AT 16:38:57 ON 03 NOV 2003

FILE 'CAPLUS' ENTERED AT 16:38:57 ON 03 NOV 2003
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FILE 'WPIDS' ENTERED AT 16:38:57 ON 03 NOV 2003

PROCESSING COMPLETED FOR L69
PROCESSING COMPLETED FOR L68
PROCESSING COMPLETED FOR L44
PROCESSING COMPLETED FOR L70
PROCESSING COMPLETED FOR L71
L72 26 DUP REM L69 L68 L44 L70 L71 (8 DUPLICATES REMOVED)
ANSWERS '1-5' FROM FILE MEDLINE
ANSWERS '6-15' FROM FILE CAPLUS
ANSWERS '16-17' FROM FILE EMBASE
ANSWERS '18-22' FROM FILE BIOSIS
ANSWERS '23-26' FROM FILE WPIDS

=> d ibib ab l72 1-26

L72 ANSWER 1 OF 26 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 1999416403 MEDLINE
DOCUMENT NUMBER: 99416403 PubMed ID: 10486935
TITLE: Extended recombinant bacterial ghost system.
AUTHOR: Lubitz W; Witte A; Eko F O; Kamal M; Jechlinger W; Brand E; Marchart J; Haidinger W; Huter V; Felnerova D; Stralis-Alves N; Lechleitner S; Melzer H; Szostak M P; Resch S; Mader H; Kuen B; Mayr B; Mayrhofer P; Geretschlager R; Haslberger A; Hensel A
CORPORATE SOURCE: Institute of Microbiology and Genetics, University of Vienna, Wien, Austria.. oldfox@gem.univie.ac.at
SOURCE: JOURNAL OF BIOTECHNOLOGY, (1999 Aug 20) 73 (2-3) 261-73.
Ref: 34
Journal code: 8411927. ISSN: 0168-1656.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199910
ENTRY DATE: Entered STN: 19991101
Last Updated on STN: 19991101
Entered Medline: 19991018

AB Controlled expression of cloned PhiX174 gene E in Gram-negative bacteria results in lysis of the bacteria by formation of an E-specific transmembrane tunnel structure built through the cell envelope complex. Bacterial ghosts from a variety of bacteria are used as non-living candidate vaccines. In the recombinant ghost system, foreign **proteins** are attached on the inside of the inner membrane as fusions with specific anchor sequences. Ghosts have a sealed periplasmic space and the export of **proteins** into this space vastly extends the capacity of ghosts or recombinant ghosts to function as carriers of foreign antigens. In addition, **S-layer proteins** forming shell-like self assembly structures can be expressed in candidate vaccine strains prior to E-mediated lysis. Such recombinant **S-layer proteins** carrying foreign epitopes further extend the possibilities of ghosts as carriers of foreign epitopes. As ghosts have inherent adjuvant properties, they can

be used as adjuvants in combination with subunit vaccines. Subunits or other ligands can also be coupled to matrixes like dextran which are used to fill the internal lumen of ghosts. Oral, aerogenic or parenteral immunization of experimental animals with recombinant ghosts induced specific humoral and cellular immune responses against bacterial and target components including protective mucosal immunity. The most relevant advantage of recombinant bacterial ghosts as immunogens is that no inactivation procedures that denature relevant immunogenic determinants are employed in this production. This fact explains the superior quality of ghosts when compared to other inactivated vaccines. The endotoxic component of the outer membrane does not limit the use of ghosts as vaccine candidates but triggers the release of several potent immunoregulatory cytokines. As carriers, there is no limitation in the size of foreign antigens that can be inserted in the membrane and the capacity of all spaces including the membranes, peri-plasma and internal lumen of the ghosts can be fully utilized. This extended recombinant ghost system represents a new strategy for adjuvant free combination vaccines.

L72 ANSWER 2 OF 26 MEDLINE on STN
ACCESSION NUMBER: 97422865 MEDLINE
DOCUMENT NUMBER: 97422865 PubMed ID: 9276930
TITLE: Applications of **S-layers**.
AUTHOR: Sleytr U B; Bayley H; Sara M; Breitwieser A; Kupcu S; Mader C; Weigert S; Unger F M; Messner P; Jahn-Schmid B; Schuster B; Pum D; Douglas K; Clark N A; Moore J T; Winningham T A; Levy S; Frithsen I; Pankovc J; Beale P; Gillis H P; Choutov D A; Martin K P
CORPORATE SOURCE: Zentrum fur Ultrastrukturforschung, Universitat fur Bodenkultur, Vienna, Austria.
SOURCE: FEMS MICROBIOLOGY REVIEWS, (1997 Jun) 20 (1-2) 151-75. Ref: 96
Journal code: 8902526. ISSN: 0168-6445.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199710
ENTRY DATE: Entered STN: 19971013
Last Updated on STN: 19971013
Entered Medline: 19971001

AB The wealth of information existing on the general principle of **S-layers** has revealed a broad application potential. The most relevant features exploited in applied **S-layer** research are: (i) pores passing through **S-layers** show identical size and morphology and are in the range of ultrafiltration membranes; (ii) functional groups on the surface and in the pores are aligned in well-defined positions and orientations and accessible for binding functional molecules in very precise fashion; (iii) isolated **S-layer** subunits from many organisms are capable of recrystallizing as closed monolayers onto solid supports at the air-water interface, on lipid monolayers or onto the surface of liposomes. Particularly their repetitive physicochemical properties down to the subnanometer scale make **S-layers** unique structures for functionalization of surfaces and interfaces down to the ultimate resolution limit. The following review focuses on selected applications in biotechnology, diagnostics, vaccine development, biomimetic membranes, supramolecular engineering and nanotechnology. Despite progress in the characterization of **S-layers** and the exploitation of

S-layers for the applications described in this chapter, it is clear that the field lags behind others (e.g. enzyme engineering) in applying recent advances in **protein** engineering. Genetic modification and targeted chemical modification would allow several possibilities including the manipulation of pore permeation properties, the introduction of switches to open and close the pores, and the covalent attachment to surfaces or other macromolecules through defined sites on the **S-layer protein**. The application of **protein** engineering to **S-layers** will require the development of straightforward expression systems, the development of simple assays for assembly and function that are suitable for the rapid screening of numerous mutants and the acquisition of structural information at atomic resolution. Attention should be given to these areas in the coming years.

L72 ANSWER 3 OF 26 MEDLINE on STN
ACCESSION NUMBER: 97011880 MEDLINE
DOCUMENT NUMBER: 97011880 PubMed ID: 8858868
TITLE: Biotechnology and biomimetic with crystalline bacterial cell **surface layers** (**S-layers**).
AUTHOR: Sara M; Sleytr U B
CORPORATE SOURCE: Zentrum fur Ultrastrukturforschung, Univeristat fur Bodenkultur, Wien, Austria.
SOURCE: MICRON, (1996 Apr) 27 (2) 141-56. Ref: 113
Journal code: 9312850. ISSN: 0968-4328.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199612
ENTRY DATE: Entered STN: 19970128
Last Updated on STN: 19970128
Entered Medline: 19961209

AB Crystalline bacterial cell **surface layers** (**S-layers**) are the outermost cell envelope component of many eubacteria and archaeobacteria. **S-layers** are composed of a single **protein** or glycoprotein species and exhibit oblique, square or hexagonal lattice symmetry. Pores passing through these monomolecular arrays show identical size and morphology, and functional groups are aligned in well-defined positions and orientations. Due to these unique features, **S-layers** have broad application potential in biotechnology including functioning as biomimetic membranes. Presently, **S-layers** are used (i) for the production of isoporous ultrafiltration membranes with very well defined molecular sieving and adsorption properties, (ii) as matrices for the controlled immobilization of biologically active macromolecules (e.g., enzymes, antibodies, ligands) as required for biosensors, affinity membranes and affinity microparticles as well as for solid phase assays, (iii) as stabilizing structures for Langmuir-Blodgett films and liposomes and (iv) as carriers and adjuvants for weakly immunogenic antigens and haptens.

L72 ANSWER 4 OF 26 MEDLINE on STN
ACCESSION NUMBER: 95133939 MEDLINE
DOCUMENT NUMBER: 95133939 PubMed ID: 7832516
TITLE: Application potential of 2D **protein** crystals (**S-layers**).
AUTHOR: Sleytr U B; Sara M; Messner P; Pum D
CORPORATE SOURCE: Zentrum fur Ultrastrukturforschung and Ludwig-Boltzmann-

Institut fur Molekulare Nanotechnologie, Universitat fur Bodenkultur, Wien, Austria.
SOURCE: ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1994 Nov 30) 745 261-9. Ref: 31
Journal code: 7506858. ISSN: 0077-8923.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199502
ENTRY DATE: Entered STN: 19950307
Last Updated on STN: 19950307
Entered Medline: 19950217

L72 ANSWER 5 OF 26 MEDLINE on STN
ACCESSION NUMBER: 94025903 MEDLINE
DOCUMENT NUMBER: 94025903 PubMed ID: 8212837
TITLE: Induction of T-cell immunity to oligosaccharide antigens immobilized on crystalline bacterial **surface layers (S-layers)**.
AUTHOR: Smith R H; Messner P; Lamontagne L R; Sleytr U B; Unger F M
CORPORATE SOURCE: Chembiomed Ltd, Edmonton Research Park, Alberta, Canada.
SOURCE: VACCINE, (1993) 11 (9) 919-24.
Journal code: 8406899. ISSN: 0264-410X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199310
ENTRY DATE: Entered STN: 19940117
Last Updated on STN: 19970203
Entered Medline: 19931026

AB Immunization of Balb/c mice with conjugates of oligosaccharide haptens and crystalline bacterial **surface-layer proteins** (**S-layers**) primed the mice for a strong, hapten-specific, delayed-type hypersensitivity (DTH) response. Conjugates of haptens with bovine serum albumin produced only weak DTH responses but, when mixed with aluminium hydroxide, elicited DTH responses comparable to those against **S-layer** conjugates. **Surface-layer** conjugates also elicited strong anti-hapten DTH responses when administered by an oral/nasal route. Apparently, the natural assembly of **S-layer proteins** into large, two-dimensional arrays endows them with intrinsic adjuvant properties.

L72 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2001:904542 CAPLUS
DOCUMENT NUMBER: 136:32709
TITLE: Transformation of Clostridia spore with gene expression cassette and its therapeutic use
INVENTOR(S): Burman, Lars G.; Akerlund, Thomas; Mukherjee, Kakoli; Katagihallimath, Nainesh
PATENT ASSIGNEE(S): Smittskyddsinstitutet, Swed.
SOURCE: PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001094599	A1	20011213	WO 2001-SE1280	20010607
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1292686	A1	20030319	EP 2001-938917	20010607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: SE 2000-2139 A 20000607
SE 2001-1479 A 20010426
WO 2001-SE1280 W 20010607

AB The present invention relates to a gene expression cassette and in particular to the use of the cassette in methods for presenting polypeptides on the surface of bacterial cells and/or secreting them into the surroundings of the latter. The invention further relates to gene expression constructs that are used to transform bacterial host cells. A gene expression cassette comprising a secretory leader sequence encoding a signal peptide from Clostridium difficile and signal peptides of analogous exported clostridial N-acetylmuramoyl-L-alanine amidase-like proteins, linked to a DNA sequence encoding a heterologous polypeptide. Therefore, in a further aspect of the invention we provide a therapeutic agent which comprises spores of Clostridia transformed with a construct capable of expressing , secreting or presenting a heterologous polypeptide in the mammalian body after germination to live bacteria. Compns., formulations, vaccines and medicaments based on spores of such engineered host organisms are used e.g. for colonization of a mammal.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L72 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2000:688115 CAPLUS
DOCUMENT NUMBER: 133:271615
TITLE: Immunostimulants comprising polycationic carbohydrates
INVENTOR(S): Alpar, Hazire Oya; Eyles, James Edward; Somavarapu, Satyanarayana; Williamson, Ethel Diane; Baillie, Leslie William James
PATENT ASSIGNEE(S): The Secretary of State for Defence, UK
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000056362	A2	20000928	WO 2000-GB1118	20000323
WO 2000056362	A3	20010201		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1163002	A2	20011219	EP 2000-912788	20000323	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2002540077	T2	20021126	JP 2000-606266	20000323	
AU 755502	B2	20021212	AU 2000-34435	20000323	
PRIORITY APPLN. INFO.:			GB 1999-6694	A	19990324
			GB 1999-6696	A	19990324
			WO 2000-GB1118	W	20000323

AB A polycationic carbohydrate such as chitosan, or a pharmaceutically acceptable derivative thereof, are used as immunostimulants. Vaccine compns. containing these polycationic carbohydrates, in particular in particles such as microparticles or liposomes are also described and claimed. Methods of treatment and the use of the polycationic carbohydrates as immunostimulants in the production of vaccines are further aspects described and claimed. A solution of 0.75% chitosan solution containing diphtheria toxoid was vigorously mixed with 200 mg of polylactide dissolved in 5 mL of dichloromethane. The emulsion was gradually added into an aqueous phase containing 0.5% chitosan and homogenized, then gently stirred overnight until dichloromethane was evaporated The microspheres thus obtain were separated, washed and lyophilized. The microspheres were injected to mice on day 1 and day 67 and IgG was monitored. Throughout the 151 day schedule mice maintained statistically elevated serum IgG titers to diphtheria toxoids as compared to animals treated with free vaccine or microspheres without chitosan.

L72 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 3

ACCESSION NUMBER:	2000:688114 CAPLUS
DOCUMENT NUMBER:	133:271614
TITLE:	Vaccine composition comprising penetration enhancers
INVENTOR(S):	Alpar, Hazire Oya; Somavarapu, Satyanarayana; Williamson, Ethel Diane; Baillie, Leslie William James
PATENT ASSIGNEE(S):	The Secretary of State for Defence, UK
SOURCE:	PCT Int. Appl., 34 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000056361	A2	20000928	WO 2000-GB1104	20000323
WO 2000056361	A3	20010301		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1163001	A2	20011219	EP 2000-912777	20000323
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002540076	T2	20021126	JP 2000-606265	20000323
NZ 514323	A	20030328	NZ 2000-514323	20000323
AU 762078	B2	20030619	AU 2000-34424	20000323

PRIORITY APPLN. INFO.: GB 1999-6694 A 19990324
GB 1999-6696 A 19990324
WO 2000-GB1104 W 20000323

AB A pharmaceutical composition comprising: (i) a biol. active agent; (ii) an adjuvant chemical which increases the effect of the biol. active agent, said chemical selected from one or more of: (A) a polyamino acid, (B) a vitamin or vitamin derivative, (C) cationic pluronics, (D) a clathrate, (E) a complexing agent, (F) cetrimides, (G) an S-layer protein, or (H) methyl-glucamine; (iii) a pharmaceutically acceptable carrier or diluent, provided that when the chemical (ii) above is selected from (D) or (E), the biol. active agent is an agent which is capable of generating a protective immune response in an animal to which it is administered. The composition, which may be in the form of a solution or particles such as microspheres or liposomes, is particularly useful for mucosal administration of vaccines especially be the intra-**nasal** route or by parenteral routes. Mice were intranasally immunized with admixed F1 (5μg) and V (1μg) antigens of Yersinia pestis in conjunction with 2.5% cyclodextrin (I). Serum was analyzed on the day 14 for the presence of anti-V and anti-F1 IgG antibodies. I had significant absorption enhancer effects as compared to the controls.

L72 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2000:688044 CAPLUS
DOCUMENT NUMBER: 133:271613
TITLE: Particle based vaccine composition
INVENTOR(S): Alpar, Hazire Oya; Williamson, Ethel Diane; Baillie, Leslie William James
PATENT ASSIGNEE(S): The Secretary of State for Defence, UK
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000056282	A1	20000928	WO 2000-GB1108	20000323
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1162945	A1	20011219	EP 2000-912780	20000323
EP 1162945	B1	20030806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002539237	T2	20021119	JP 2000-606189	20000323
NZ 514322	A	20030328	NZ 2000-514322	20000323
AT 246491	E	20030815	AT 2000-912780	20000323
US 2003171258	A1	20030911	US 2003-335906	20030102

PRIORITY APPLN. INFO.: GB 1999-6695 A 19990324
WO 2000-GB1108 W 20000323
US 2001-937065 B1 20010920

AB A pharmaceutical composition which comprises microparticles comprising (1) a biol. active compound capable of generating an immune response in an animal to which it is administered which is protective against a pathogen; (2) a

polymeric material capable of forming microspheres; and (3) an immunostimulant comprising a phospholipid. The composition is particularly useful for the oral administration of vaccines. An aqueous solution containing tetanus toxoid and polyvinyl alc. was microencapsulated using an organic phase containing poly(L-lactide) and lecithin in CH2Cl2.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L72 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:656908 CAPLUS
DOCUMENT NUMBER: 139:202434
TITLE: Bacteria protected from phagocytosis by plasma proteins for the targeted delivery of therapeutic genes and proteins to specific cell types
INVENTOR(S): Goebel, Werner; Rapp, R. Ulf; Sedlacek, Hans-Harald; Fensterle, Joachim; Gentschev, Ivaylo
PATENT ASSIGNEE(S): Medinnova Gesellschaft Fuer Medizinische Innovationen Aus Akademischer Forschung m.b.H., Germany
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068954	A2	20030821	WO 2003-DE470	20030213
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10206325	A1	20030904	DE 2002-10206325	20020214

PRIORITY APPLN. INFO.: DE 2002-10206325 A 20020214

AB The use of bacteria for the intracellular delivery of cytotoxic or other therapeutic proteins is described. The bacteria use a number of genes for targeting and delivery, including: one or more genes for antiproliferative or cytotoxic products; a constitutively expressed gene for a blood plasma protein, and optionally a gene for a cell-specific ligand. The plasma protein, which may be a fusion protein with a host cell surface protein, is presented on the cell surface to prevent it being phagocytosed before it reaches the target cell for the ligand. The proteins are transferred to the cell surface using a protein transport system for a secreted protein such as a hemolysin. The secretion system may be constitutive or regulated. The bacterium may be turned into a suicide host by introduction of genes for a system that causes the cell to lyse in the cytoplasm of a host cell to release such as cytotoxins retained within the cell or a plasmid carrying an expression cassette for an antigen. The individual components may parts of the same regulatory system or may be under control of independent regulatory systems as needed. The development of strains of Salmonella typhimurium that use the hemolysin secretory pathway to simultaneously present human serum albumin and proteins including human β-glucuronidase or Fas ligand on the cell surface is demonstrated.

L72 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:532684 CAPLUS
DOCUMENT NUMBER: 139:83973
TITLE: Modified bacterial surface layer proteins
INVENTOR(S): Pouwels, Pieter Hendrik; Smit, Egbert; Tielen, Frans
PATENT ASSIGNEE(S): Nederlandse Organisatie Voor Toegepast-Natuurwetenschappelijk Onderzoek Tno, Neth.
SOURCE: PCT Int. Appl., 93 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003055906	A1	20030710	WO 2002-EP14749	20021223

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: EP 2001-310937 A 20011228
AB The authors disclose that the Lactobacillus surface layer (S-layer) protein can be modified for the insertion, at an internal location, of a heterologous peptide. In one example, the N-terminal fragment of the Lactobacillus slpA protein was engineered to express the c-myc epitope at several insertion sites. Some insertion sites did not disrupt the ability of the N-terminal fragment to crystallize. In a second express, modified surface layer protein was expressed on the surface of the bacterial cell.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L72 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:615431 CAPLUS
DOCUMENT NUMBER: 137:184448
TITLE: Clostridium difficile vaccine comprising surface layer protein SlpA
INVENTOR(S): Doyle, Rachael; Kelleher, Dermot; Windle, Henry J.; Walsh, James Bernard; Deirdre, Ni Eidhin
PATENT ASSIGNEE(S): The Provost, Fellows and Scholars of the College of the Holy and Unidivided Trinity of Queen Elizabeth, Ire.
SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062379	A2	20020815	WO 2002-IE17	20020211
WO 2002062379	A3	20030116		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003054009 A1 20030320 US 2002-68870 20020211

PRIORITY APPLN. INFO.: IE 2001-137 A 20010209

AB A vaccine for the treatment or prophylaxis of C. difficile associated disease comprises a C. difficile gene or a C. difficile peptide/polypeptide or a derivative or fragment or mutant or variant thereof which is immunogenic in humans. The gene encodes a C. difficile surface layer protein, SlpA or variant or homolog thereof. The peptide/polypeptide is a C. difficile surface layer protein, SlpA or variant or homolog thereof. The vaccine may comprise a chimeric nucleic acid sequence.

L72 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:536912 CAPLUS

DOCUMENT NUMBER: 127:201021

TITLE: Expression of S-layer proteins in Gram-negative bacteria and recombinant chimeric S-layer proteins for use as vaccines

INVENTOR(S): Lubitz, Werner; Sleytr, Uwe; Kuen, Beatrix; Truppe, Michaela; Howorka, Stefan; Resch, Stepanka; Schroll, Gerhard; Sara, Margit

PATENT ASSIGNEE(S): Lubitz, Werner, Austria; Sleytr, Uwe; Kuen, Beatrix; Truppe, Michaela; Howorka, Stefan; Resch, Stepanka; Schroll, Gerhard; Sara, Margit

SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9728263	A1	19970807	WO 1997-EP432	19970131
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 19603649	A1	19970807	DE 1996-19603649	19960201
CA 2245584	AA	19970807	CA 1997-2245584	19970131
AU 9717203	A1	19970822	AU 1997-17203	19970131
AU 713999	B2	19991216		
EP 882129	A1	19981209	EP 1997-904360	19970131
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1213402	A	19990407	CN 1997-192940	19970131
JP 2000503850	T2	20000404	JP 1997-527307	19970131
US 2002168728	A1	20021114	US 1998-117447	19981202

PRIORITY APPLN. INFO.: DE 1996-19603649 A 19960201

WO 1997-EP432 W 19970131

AB The invention concerns processess for the recombinant preparation of S-layer proteins in Gram-neg. host cells. In addition, the nucleotide sequence of a new S-layer gene, the sbsB gene of Bacillus stearothermophilus, and a process for preparation of modified S-layer proteins is disclosed. Recombinant Escherichia coli expressing the sbsA gene of B. stearothermophilus and chimeric sbsA genes encoding SbsA into which various peptides, proteins and enzymes have been inserted were prepared and cultured to produce the proteins.

L72 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1998:40075 CAPLUS
DOCUMENT NUMBER: 128:139533
TITLE: Bet v 1, the major birch pollen allergen, conjugated to crystalline bacterial cell surface proteins, expands allergen-specific T cells of the Th1/Th0 phenotype in vitro by induction of IL-12
AUTHOR(S): Jahn-Schmid, Beatrice; Siemann, Ute; Zenker, Andrea; Bohle, Barbara; Messner, Paul; Unger, Frank M.; Sleytr, Uwe B.; Scheiner, Otto; Kraft, Dietrich; Ebner, Christof
CORPORATE SOURCE: Zentrum Ultrastrukturforschung Ludwig Boltzmann-Institut Molekulare Nanotechnologie, Universitat Bodenkultur, Wienna, Austria
SOURCE: International Immunology (1997), 9(12), 1867-1874
CODEN: INIMEN; ISSN: 0953-8178
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Modulation of allergic immune responses by using adequate adjuvants is a promising concept for future immunotherapy of type I hypersensitivity. Here, recombinant Bet v 1 (rBet v 1, the major birch pollen allergen) was conjugated to cross-linked crystalline surface layer proteins (SL) derived from Gram-pos. eubacteria. T cell lines (TCL) and clones (TCC) were established from peripheral blood of birch pollen-allergic patients. TCL and TCC were induced either using rBet v 1 alone or rBet v 1/SL conjugates (rBet v 1/SL) as initial antigen stimulus. Cytokine production after re-stimulation with rBet v 1 was investigated. TCL initiated with rBet v 1/SL showed increased IFN-γ production as compared to rBet v 1-selected TCL. TCC were established from TCL of 5 patients. As expected, the majority of CD4+ TCC induced by rBet v 1 (55%) displayed a Th2-like pattern of cytokine production However, only 21% of Bet v 1-specific TCC isolated from TCL established with the Bet v 1/SL revealed this phenotype. The majority of SL-specific TCC (80%) belonged to the Th1 phenotype. In cultures of peripheral blood mononuclear cells, both, SL and Bet v 1/SL (but not rBet v 1) stimulated the production of high levels of IL-12, a pivotal mediator of Th1 responses. Moreover, stimulation of rBet v 1-induced TCC with rBet v 1/SL led to an increased IFN-γ production This effect could be reversed by neutralizing anti-IL-12 mAb. Together these results indicate an adjuvant effect of SL mediated by IL-12. Thus, bacterial components, such as SL, displaying adjuvant effects may be suitable for immunotherapeutical vaccines for type I allergy.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L72 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1996:76991 CAPLUS
DOCUMENT NUMBER: 124:142911
TITLE: Toward selective elicitation of TH1-controlled vaccination responses: vaccine applications of bacterial surface layer proteins

AUTHOR(S): Jahn-Schmid, Beatrice; Messner, Paul; Unger, Frank M.; Sleytr, Uwe B.; Scheiner, Otto; Kraft, Dietrich
CORPORATE SOURCE: Zentrum fuer Ultrastrukturforschung und Ludwig Boltzmann-Institut fuer Molekulare Nanotechnologie, Universitaet fuer Bodenkultur, Vienna, A-1180, Austria
SOURCE: Journal of Biotechnology (1996), 44(1-3), 225-31
CODEN: JBITD4; ISSN: 0168-1656
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 17 refs. Bacterial surface layer proteins have been utilized as combined vaccine carrier/adjuvants and offer a number of advantages in these applications. The crystalline protein arrays contain functional groups in precisely defined orientations for coupling of haptens. Conventional applications of S-layer vaccines do not cause observable trauma or side effects. Depending on the nature of the S-layer prepns., antigenic conjugates will induce immune responses of a predominantly cellular or predominantly humoral nature. Immune responses to S-layer-hapten conjugates are also observed following oral/**nasal** application. In the present contribution, the status of investigations with S-layer conjugates in three main immunol. projects is reviewed. In a project aimed at immunotherapy of cancer, conjugates of S-layer with small, tumor-associated oligosaccharides have been found to elicit hapten-specific DTH responses. An enlarged program of chemical synthesis has now been initiated to prepare a complete set of mucin-derived, tumor-associated oligosaccharides and their chemical modified analogs for elicitation of cell-mediated immune responses to certain tumors in humans. In another application, oligosaccharides derived from capsules of Streptococcus pneumoniae type 8 have been linked to S-layer proteins and have been found to elicit protective antibody responses in animals. Most recently, allergen-S-layer conjugates have been prepared with the intention to suppress the TH2-directed, IgE-mediated allergic responses to Betv1, the major allergen of birch pollen. In the former two applications, the S-layer vaccine technol. appears to offer the versatility needed to direct vaccination responses toward predominant control by TH1 or TH2 lymphocytes to meet the different therapeutic or prophylactic requirements in each case. In the third application, work has progressed to a preliminary stage only.

12/1/03

L72 ANSWER 16 OF 26 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 5

ACCESSION NUMBER: 1999106967 EMBASE
TITLE: New strategies for combination vaccines based on the extended recombinant bacterial ghost system.
AUTHOR: Eko F.O.; Witte A.; Huter V.; Kuen B.; Furst-Ladani S.; Haslberger A.; Katinger A.; Hensel A.; Szostak M.P.; Resch S.; Mader H.; Raza P.; Brand E.; Marchart J.; Jechlinger W.; Haidinger W.; Lubitz W.
CORPORATE SOURCE: W. Lubitz, Inst. of Microbiology and Genetics, University of Vienna, Dr. Bohrgasse 9, A-1030 Vienna, Austria. oldfox@gem.univie.ac.at
SOURCE: Vaccine, (26 Mar 1999) 17/13-14 (1643-1649).
Refs: 24
ISSN: 0264-410X CODEN: VACCDE
PUBLISHER IDENT.: S 0264-410X(98)00423-X
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 004 Microbiology
017 Public Health, Social Medicine and Epidemiology
026 Immunology, Serology and Transplantation
037 Drug Literature Index

039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Controlled expression of cloned PhiX174 gene E in Gram-negative bacteria results in lysis of the bacteria by formation of an E-specific transmembrane tunnel structure built through the cell envelope complex. Bacterial ghosts have been produced from a great variety of bacteria and are used as non- living candidate vaccines. In the recombinant ghost system, foreign **proteins** are attached on the inside of the inner membrane as fusions with specific anchor sequences. Ghosts have a sealed periplasmic space and the export of **proteins** into this space vastly extents the capacity of ghosts or recombinant ghosts to function as carriers of foreign antigens, immunomodulators or other substances. In addition, **S-layer proteins** forming shell-like self assembly structures can be expressed in bacterial candidate vaccine strains prior to E-mediated lysis. Such recombinant **S-layer proteins** carrying inserts of foreign epitopes of up to 600 amino acids within the flexible surface loop areas of the **S-layer** further extend the possibilities of ghosts as carriers of foreign epitopes. As ghosts do not need the addition of adjuvants to induce immunity in experimental animals they can also be used as carriers or targeting vehicles or as adjuvants in combination with subunit vaccines. Matrixes like dextran which can be used to fill the internal lumen of ghosts can be substituted with various ligands to bind the subunit or other materials of interest. Oral, aerogenic or parenteral immunization of experimental animals with recombinant ghosts induced specific humoral and cellular immune responses against bacterial and target components including protective mucosal immunity. The most relevant advantage of ghosts and recombinant bacterial ghosts as immunogens is that no inactivation procedures that denature relevant immunogenic determinants are employed in the production of ghosts. This fact explains the superior quality of ghosts when compared to other inactivated vaccines. As carriers of foreign antigens there is no limitation in the size of foreign antigens to be inserted and the capacity of all spaces including the membranes, periplasma and internal lumen of the ghosts can be fully utilized. Using the different building blocks and combining them into the recombinant ghost system represents a new strategy for adjuvant free combination vaccines.

L72 ANSWER 17 OF 26 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 2003260419 EMBASE
TITLE: Secretory delivery of recombinant **proteins** in attenuated Salmonella strains: Potential and limitations of Type I **protein** transporters.
AUTHOR: Hahn H.P.; Von Specht B.-U.
CORPORATE SOURCE: H.P. Hahn, Chirurgische Universitatsklinik, Chirurgische Forschung, Freiburg, i. Br., Germany. hahn@ch11.ukl.uni-freiburg.de
SOURCE: FEMS Immunology and Medical Microbiology, (15 Jul 2003) 37/2-3 (87-98).
Refs: 89
ISSN: 0928-8244 CODEN: FIMIEV
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; (Short Survey)
FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Live attenuated Salmonella strains have been extensively explored as oral

delivery systems for recombinant vaccine antigens and effector **proteins** with immunoadjuvant and immunomodulatory potential. The feasibility of this approach was demonstrated in human vaccination trials for various antigens. However, immunization efficiencies with live vaccines are generally significantly lower compared to those monitored in parenteral immunizations with the same vaccine antigen. This is, at least partly, due to the lack of secretory expression systems, enabling large-scale extracellular delivery of vaccine and effector **proteins** by these strains. Because of their low complexity and the terminal location of the secretion signal in the secreted **protein** , Type I (ATP-binding cassette) secretion systems appear to be particularly suited for development of such recombinant extracellular expression systems. So far, the Escherichia coli hemolysin system is the only Type I secretion system, which has been adapted to recombinant **protein** secretion in Salmonella. However, this system has a number of disadvantages, including low secretion capacity, complex genetic regulation, and structural restriction to the secreted **protein**, which eventually hinder high-level in vivo delivery of recombinant vaccines and effector **proteins**. Thus, the development of more efficient recombinant **protein** secretion systems, based on Type I exporters can help to improve efficacies of live recombinant Salmonella vaccines. Type I secretion systems, mediating secretion of bacterial **surface layer proteins**, such as RsaA in Caulobacter crescentus, are discussed as promising candidates for improved secretory delivery systems. .COPYRGT. 2003 Federation of European Microbiological Societies. Published by Elsevier Science B.V. All rights reserved.

L72 ANSWER 18 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2002:113063 BIOSIS
DOCUMENT NUMBER: PREV200200113063
TITLE: Gastrointestinal mucoadhesive patch system (GI-MAPS) for oral administration of G-CSF, a model **protein**.
AUTHOR(S): Eiamtrakarn, S.; Itoh, Y.; Kishimoto, J.; Yoshikawa, Y.; Shibata, N.; Murakami, M.; Takada, K. [Reprint author]
CORPORATE SOURCE: Department of Pharmaceutics and Pharmacokinetics, Kyoto Pharmaceutical University, Yamashina-ku, Kyoto, 607-8414, Japan
takada@mb.kyoto-phu.ac.jp
SOURCE: Biomaterials, (January, 2002) Vol. 23, No. 1, pp. 145-152. print.
CODEN: BIMADU. ISSN: 0142-9612.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 30 Jan 2002
Last Updated on STN: 26 Feb 2002

AB A new gastrointestinal mucoadhesive patch system (GI-MAPS) has been designed for the oral **delivery** of **protein drugs**. The system consists of four layered films, 3.0 X 3.0 mm2, contained in an enteric capsule. The 40 mum backing layer is made of a water-insoluble polymer, ethyl cellulose (EC). The **surface layer** is made of an enteric pH-sensitive polymer such as hydroxypropylmethylcellulose phthalate (HP-55(R)), Eudragit(R) L100 or S100 and was coated with an adhesive layer. The middle layer, drug-containing layer, made of cellulose membrane is attached to the EC backing layer by a heating press method. Both drug and pharmaceutical additives including an organic acid, citric acid, and a non-ionic surfactant, polyoxyethylated castor oil derivative (HCO-60(R)), were formulated in the middle layer. The **surface layer** was attached to the middle layer by an adhesive layer made of carboxyvinyl polymer (Hiviswako(R) 103). Fluorescein (FL), 30 mg, was first used as a

model drug for oral administration of GI-MAPS having different **surface layers** in beagle dogs. The plasma FL concentration vs. time profiles demonstrated that the targeting of the systems was obtained, because the Tmax, the time when plasma FL concentrations reaches to its maximum lelev, was 2.33 +- 0.82 h for HP-55 system, 3.33 +- 0.41 h for Eudragit L100 system and 5.00 +- 0.00 h for Eudragit S100 system. The same three kinds of GI-MAPSs containing 125 mug of recombinant human granulocyte colony-stimulating factor (G-CSF) were prepared and orally administered to dogs and the increase in total white blood cell (WBC) counts were measured as the pharmacological index for G-CSF. Comparison with the total increase of WBCs after iv injection of the same amount of G-CSF (125 mug) indicated the pharmacological availabilities (PA) of G-CSF were 23%, 5.5% and 6.0% for Eudragit L100, HP-55 and Eudragit S100 systems. By decreasing the amount of HCO-60 and citric acid, the PA of G-CSF decreased. These results suggest the usefulness of GI-MAPS for the oral administration of **proteins**.

L72 ANSWER 19 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2000:477883 BIOSIS
DOCUMENT NUMBER: PREV200000477883
TITLE: Studies on physicochemical properties of emulsion surface and lipoprotein lipase activity.
AUTHOR(S): Arimoto, Itaru [Reprint author]
CORPORATE SOURCE: Analytical Research Laboratories, 5-1-3 Tokodai, Tsukuba, 300-2635, Japan
SOURCE: Membrane, (2000) Vol. 25, No. 5, pp. 214-219. print.
CODEN: MAKUD9. ISSN: 0385-1036.
DOCUMENT TYPE: Article
LANGUAGE: Japanese
ENTRY DATE: Entered STN: 8 Nov 2000
Last Updated on STN: 10 Jan 2002

AB The hydrolysis of triglycerides (TG) by lipoprotein lipase (LPL) is a crucial process in the metabolism of TG-rich lipoproteins and artificial lipid emulsions injected intravenously. In this study, we found that sphingomyelin (SM) at the emulsion surface inhibits LPL-mediated lipolysis both in vivo and in vitro. Incorporation of SM into the emulsion surface caused an increase in the apparent Michaelis-Menten constant (Km (app)) and a decrease in the apparent maximal lipolysis rate (Vmax (app)). SM was also found to affect factors which may be related to the kinetic parameters; that is, SM increased TG solubility in **surface layers** and decreased apoC-II binding to the emulsion surface. Interestingly, cholesterol (Chol) did not affect the lipolysis rates although it decreased TG solubility and apoC-II binding. These results indicated that neither TG solubility at the **surface layer** nor amount of apoC-II binding are determining factors in LPL-mediated lipolysis under physiological conditions. Furthermore, on the basis of kinetic studies, we showed that SM inhibits lipolysis by decreasing both the binding affinity for emulsions and the catalytic activity of LPL. The mechanism by which SM at the emulsion surface inhibits lipolysis was also discussed. SM strongly increased head group packing probably due to the high capacity of forming hydrogen bonds, whereas Chol had little effect on the head group structure of the emulsion surface. Decreasing the head group mobility by SM could inhibit the insertion of the binding region of LPL **protein**, resulting in increases in Km (app). In addition, SM stabilizes TG in the **surface layer** and retards the transfer of TG from the lipid particle surface to the catalytic pocket of LPL, resulting in decreases in LPL catalytic activity and Vmax (app). Our results suggested that head group packing significantly affects LPL binding to the lipid surface and that TG stability in the **surface layer** is important for the LPL catalytic activity. From these results, the content

of SM in the lipoprotein surface is presumed to play an important role in controlling LPL-mediated lipolysis by the mechanism described above. Artificial lipid emulsions are used as drug carriers, and the control of TG hydrolysis of lipid carriers is important for development of better **drug delivery** systems. The lipolysis activity can be modulated by surface lipid properties, i.e., the surface lipid composition.

L72 ANSWER 20 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1997:274348 BIOSIS
DOCUMENT NUMBER: PREV199799566066
TITLE: Bacterial ghosts as multifunctional **vaccine** particles.
AUTHOR(S): Szostak, M. P.; Mader, H.; Truppe, M.; Kamal, M.; Eko, F. O.; Huter, V.; Marchart, J.; Jechlinger, W.; Haidinger, W.; Brand, E.; Denner, E.; Resch, S.; Dehlin, E.; Katinger, A.; Kuen, B.; Haslberger, A.; Hensel, A.; Lubitz, W. [Reprint author]
CORPORATE SOURCE: Inst. Microbiol. Genentics, Univ. Vienna, Dr. Bohrgasse 9, A-1030 Vienna, Austria
SOURCE: Behring Institute Mitteilungen, (1997) Vol. 0, No. 98, pp. 191-196.
CODEN: BHIMA2. ISSN: 0301-0457.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Jun 1997
Last Updated on STN: 24 Jun 1997

AB Expression of cloned PhiX174 gene E in Gram-negative bacteria results in lysis of the bacteria by formation of an E-specific transmembrane tunnel structure built through the cell envelope complex. Bacterial ghosts have been produced from a variety of bacteria including Escherichia coli, Salmonella typhimurium, Salmonella enteritidis, Vibrio cholerae, Klebsiella pneumoniae, Actinobacillus pleuropneumoniae, Haemophilus influenzae, Pasteurella haemolytica, Pasteurella multocida, and Helicobacter pylori. Such ghosts are used as non-living candidate **vaccines** and represent an alternative to heat or chemically inactivated bacteria. In recombinant ghosts, foreign **proteins** can be inserted into the inner membrane prior to E-mediated lysis via specific N-, or C-, or N- and C-terminal anchor sequences. The export of **proteins** into the periplasmic space or the expression of recombinant **S-layer proteins** vastly extents the capacity of ghosts or recombinant ghosts as carriers of foreign epitopes or **proteins**. Oral, aerogenic or parenteral applications of (recombinant) ghosts in experimental animals induced specific humoral and cellular immune responses against bacterial and target components including protective **mucosal** immunity. The most relevant advantage of ghosts and recombinant bacterial ghosts as immunogens is that no inactivation procedures that denature relevant immunogenic determinants are employed in the production of ghosts used as **vaccines** or as carriers of relevant antigens. The inserted target antigens into the inner membrane or into **S-layer proteins** are not limited in size.

L72 ANSWER 21 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1994:551010 BIOSIS
DOCUMENT NUMBER: PREV199598010558
TITLE: Preparation of sterically stabilized human serum albumin nanospheres using a novel dextranox-MPEG crosslinking agent.
AUTHOR(S): Lin, Wu; Coombes, Allan G. A.; Garnett, Martin C.; Davies, Martyn C.; Schacht, Etienne; Davis, Stanley S.; Illum,

Lisbeth [Reprint author]
CORPORATE SOURCE: Dep. Pharmaceutical Sci., Univ. Nottingham, University Park, Nottingham NG7 2RD, UK
SOURCE: Pharmaceutical Research (New York), (1994) Vol. 11, No. 11, pp. 1588-1592.
CODEN: PHREEB. ISSN: 0724-8741.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 22 Dec 1994
Last Updated on STN: 23 Feb 1995

AB Human serum albumin (HSA) nanospheres with a size less than 200 nm in diameter were prepared using a modified coacervation method and crosslinking with methyl polyethylene glycol modified oxidized Dextram (Dextranox-MPEG) which created a sterically stabilizing polyethylene oxide **surface layer** surrounding the nanospheres. The crosslinking efficiency and the surface characteristics of glutaraldehyde and Dextranox-MPEG crosslinked HSA nanospheres were determined and compared. The zeta potential of the Dextranox-MPEG crosslinked particles was significantly lower than that of glutaraldehyde stabilized particles. The existence of a hydrated steric barrier surrounding the nanospheres was confirmed by an electrolyte and pH induced flocculation test. The Dextranox-MPEG crosslinked nanospheres showed a significantly reduced plasma **protein** adsorption on the particle surface compared with glutaraldehyde crosslinked nanospheres.

L72 ANSWER 22 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1984:236984 BIOSIS
DOCUMENT NUMBER: PREV198477069968; BA77:69968
TITLE: INTERACTIONS OF IONIC AND NONIONIC SURFACTANTS WITH PLASMA LOW DENSITY LIPO **PROTEIN.**
AUTHOR(S): TUCKER I G [Reprint author]; FLORENCE A T
CORPORATE SOURCE: DEP PHARMACY, UNIV STRATHCLYDE, GLASGOW G1 1XW, UK
SOURCE: Journal of Pharmacy and Pharmacology, (1983) Vol. 35, No. 11, pp. 705-711.
CODEN: JPPMAB. ISSN: 0022-3573.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB Surfactants might be useful in facilitating the replacement of the interior of low density lipoprotein (LDL2) (ρ = 1.02-1.063 g/ml) with drug molecules. Photon correlation spectroscopy, supported by sedimentation velocity measurements was used to study the effects of surfactants on LDL2. Sodium dodecyl sulfate, cetrimide and all non-ionic surfactants studied caused rapid increases of .apprx. 50% in the Stokes' radius up to surfactant/LDL2 molar ratios of .apprx. 1000:1. This was interpreted as due to partial unfolding of the LDL2 **protein** and intercalation of surfactant with the LDL2 **surface layer** . At higher concentrations, ionic surfactants and non-ionics with HLB [hydrophile lipophile balance] values < 14.6 decreased the Stokes' radius due to delipidation of LDL2. These interactions are similar to those between surfactants and biological membranes, thus LDL2 might be a useful model system to study surfactant structure-activity relationships.

L72 ANSWER 23 OF 26 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-721778 [68] WPIDS
DOC. NO. CPI: C2003-198652
TITLE: Microorganism that expresses cellular antigen, useful as **vaccines** for treating e.g. cancer or infections, is transformed to express antigen, and transport and lytic proteins.
DERWENT CLASS: B04 D16

INVENTOR(S): FENSTERLE, J; GENTSCHEV, I; GOEBEL, W; RAPP, U R
PATENT ASSIGNEE(S): (MEDI-N) MEDINNOVA GES MEDIZINISCHE INNOVATIONEN
COUNTRY COUNT: 102
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003072789	A2	20030904	(200368)*	GE	29

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

DE 10208653 A1 20030918 (200369)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003072789	A2	WO 2003-DE471	20030213
DE 10208653	A1	DE 2002-10208653	20020228

PRIORITY APPLN. INFO: DE 2002-10208653 20020228

AB WO2003072789 A UPAB: 20031022

NOVELTY - Microorganism (A) that includes a nucleic acid sequence (I) that encodes a cellular antigen (Ag), incorporated into its genome in expressible form, is new.

DETAILED DESCRIPTION - Microorganism (A) includes a nucleic acid sequence (I) that includes:

(i) sequence encoding an epitope of one or more Ag of a tumor cell or of a tissue from which the tumor has developed;

(ii) optionally a sequence encoding a protein that stimulates cells of the immune system;

(iii) a sequence:

(a) for a transport system that mediates expression of the product of (i), and optionally (ii), on the outer surface of a bacterium and/or secretion of the product; and/or

(b) for a protein that causes lysis of the microorganism in the cytosol of mammalian cells and intracellular release of plasmids from lysed organisms; and

(iv) an activation system for expression of (i)-(iii-b) that is activatable in the microorganism and is optionally tissue-cell specific.

All of (i)-(iv) may be present one or more times, each same or different

INDEPENDENT CLAIMS are also included for:

(1) plasmid and expression vector containing (i)-(iv); and

(2) preparing (A) by transformation with the vector of (1).

ACTIVITY - Cytostatic; Virucide; Antibacterial; Immunosuppressive; Antiinflammatory. Mice that express the complete Raf sequence spontaneously develop lung tumors. These mice were immunized orally with 5 multiply 109 Salmonella cells that expressed a fusion protein of c-Raf with hylA (hemolysin transporter of E. coli, twice at an interval of 5 days, and then with 0.5 million of these cells intravenously. When examined 5-7 days later, the mice were producing c-Raf-specific antibodies, i.e. self-tolerance had been lifted. The immunized animals also had smaller lung weights (a direct measure of tumor size) when examined after 14 months.

MECHANISM OF ACTION - **Vaccine**; reversing immune tolerance

of tumor antigens.
USE - (A) are used for prevention and/or treatment of diseases caused by uncontrolled cell division, specifically tumors (of prostate, ovary, breast, stomach, kidney, thyroid, cervix, bladder, pancreas or lymph glands, also melanoma); leukemia; viral or bacterial infections; chronic inflammation; organ rejection and autoimmune diseases, including elimination of tissues from which tumors are derived.
Dwg.0/2

L72 ANSWER 24 OF 26 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-616508 [71] WPIDS
DOC. NO. NON-CPI: N2001-459824
DOC. NO. CPI: C2001-184651
TITLE: Novel polypeptides and polynucleotides of cell wall proteins of Clostridium difficile especially **S-layer** cell wall **protein** useful for preventing and treating the infection caused by the bacteria.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): CALABI, E; FAIRWEATHER, N F
PATENT ASSIGNEE(S): (UNLO) IMPERIAL COLLEGE SCI TECHNOLOGY & MED
COUNTRY COUNT: 96
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001073040	A1	20011004	(200171)*	EN	62
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001039439	A	20011008	(200208)		
EP 1268806	A1	20030102	(200310)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001073040	A1	WO 2001-GB1305	20010323
AU 2001039439	A	AU 2001-39439	20010323
EP 1268806	A1	EP 2001-914053	20010323
		WO 2001-GB1305	20010323

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001039439	A	Based on	WO 2001073040
EP 1268806	A1	Based on	WO 2001073040

PRIORITY APPLN. INFO: GB 2000-7263 20000324
AB WO 200173040 A UPAB: 20011203
NOVELTY - A polypeptide (I) of cell wall protein (S-layer) of Clostridium difficile comprising a fully defined 714 (strain 17 protein) (S1), 719 (strain 630 protein) (S2) or 756 (strain 1 protein) (S3) amino acid sequence as given in the specification, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the

following:
(1) a polynucleotide (II) capable of encoding (I);
(2) a peptide (III) comprising a portion of (I);
(3) a nucleotide (IV) capable of encoding (III);
(4) a vector (V) comprising (II) or (IV);
(5) a host cell comprising (V);
(6) a compound capable of binding specifically to (I) and/or (III);
(7) an antibody (VI) specific to (III);
(8) a pharmaceutical composition comprising (I) or (II) or their portion, (III), (IV), (V) or (VI); and
(9) an immune modulating composition comprising (I), (II), (III), (IV), (V) and (VI).
ACTIVITY - Antidiarrheic; Antiinflammatory; Vulnerary; Antibacterial.
MECHANISM OF ACTION - **Immunomodulator (vaccine)**.
No supporting data is given.
USE - (I) and (III) is useful for screening a compound capable of interacting specifically with a C.difficile **S-layer protein** (claimed). (I), (II), (III) and (IV) are useful for producing antibodies (claimed). (I), (II), (III), (IV), (V), (VI), the pharmaceutical composition and the **immunomodulating** composition are useful for treating and/or preventing a disease associated with C.difficile infection in a subject (claimed) which include pseudomembranous colitis (PMC) in humans characterized by diarrhoea, a severe inflammation of the colonic **mucosa**, and formation of pseudomembranes that are composed of fibrin, mucus, necrotic epithelial cells and leukocytes; gastrointestinal illness, abscesses, wound infections, osteomyelitis, urogenital tract infections, septicemia, peritonitis, and pleuritis.
Dwg.0/9

L72 ANSWER 25 OF 26 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 1999-122189 [11] WPIDS
DOC. NO. CPI: C1999-035946
TITLE: Producing **S-layer proteins** in Gram-negative bacteria or eukaryotes - integrated into membranes or organelles or secreted into periplasma or growth medium, and nucleic acid encoding **S-layer proteins** with peptide insertions, used in vaccines or for enzymatic reactions.
DERWENT CLASS: A23 B04 D16
INVENTOR(S): LUBITZ, W; RESCH, S
PATENT ASSIGNEE(S): (LUBI-I) LUBITZ W
COUNTRY COUNT: 83
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
DE 19732829	A1	19990204	(199911)*		33
WO 9906567	A1	19990211	(199913)	GE	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
AU 9890705	A	19990222	(199927)		
EP 1005553	A1	20000607	(200032)	GE	
R: AT BE CH DE DK ES FR GB IE IT LI NL SE					
AU 747328	B	20020516	(200244)		
US 6596510	B1	20030722	(200354)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 19732829	A1	DE 1997-19732829	19970730
WO 9906567	A1	WO 1998-EP4723	19980727
AU 9890705	A	AU 1998-90705	19980727
EP 1005553	A1	EP 1998-942648	19980727
		WO 1998-EP4723	19980727
AU 747328	B	AU 1998-90705	19980727
US 6596510	B1	WO 1998-EP4723	19980727
		US 2000-463402	20000330

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9890705	A	Based on	WO 9906567
EP 1005553	A1	Based on	WO 9906567
AU 747328	B	Previous Publ.	AU 9890705
		Based on	WO 9906567
US 6596510	B1	Based on	WO 9906567

PRIORITY APPLN. INFO: DE 1997-19732829 19970730

AB DE 19732829 A UPAB: 19990316

Production of **S-layer protein** (I) comprises: (a) preparing a Gram-negative prokaryotic host cell transformed with nucleic acid (II) encoding (I), linked to a signal sequence (SS) that encodes a protein which causes at least one of: (i) integration of (I) into the external or cytoplasmic membranes; and/or (ii) secretion of (I) into the periplasmic space or extracellular medium; (b) culturing the cell to express (I); and (c) optionally recovering (I) from the membranes, periplasmic space and/or extracellular medium. Alternatively, a eukaryotic cell is used as host and then the SS, which is optional, promotes integration into the cytoplasmic membrane or an organelle and/or secretion into the extracellular medium. Also new are: (1) nucleic acid (IIa) encoding (I) that optionally includes heterologous (poly)peptide inserts, linked to an SS functional in Gram-negative bacteria or eukaryotes; (2) vectors containing at least one copy of (IIa); and (3) Gram-positive prokaryotes or eukaryotic cells containing (IIa) or the vector.

USE - (I), and derived structures, may include a wide variety of (poly)peptide inserts and are useful as: (i) vaccines or adjuvants (with immunogenic epitopes or **immunostimulants** inserts such as cytokines); (ii) as reactors (inserts are enzymes, e.g. poly(hydroxybutyrate) (PHB) synthase for use as a 'molecular spinnerette' for production of PBH or luciferase for use as molecular laser (when combined with substrate and oxygen)); and (iii) as universal carrier molecule (streptavidin is inserted) for use in hybridisation and immuno assays, or for selective elimination of cytokines, toxins etc. from body fluids (inserts are specific binding epitopes). (I) may be provided in the form of bacterial 'ghosts'.

ADVANTAGE - In this system, heterologous (I) do not form inclusion bodies but rather monomolecular layers, and in eukaryotic cells they undergo glycosylation.

Dwg.0/5

L72 ANSWER 26 OF 26 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 1998-437061 [37] WPIDS
DOC. NO. CPI: C1998-132815
TITLE: Mutant Campylobacter fetus encoding, e.g. heterologous protein - useful in **vaccines**, e.g. against

infectious abortion or infertility in ungulates.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): BLASER, M J; DWORKIN, J; THOMPSON, S A
PATENT ASSIGNEE(S): (UYVA-N) UNIV VANDERBILT
COUNTRY COUNT: 21
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9833386	A1	19980806	(199837)*	EN	42
RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: AU CA JP US					
AU 9860503	A	19980825	(199903)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9833386	A1	WO 1998-US1780	19980130
AU 9860503	A	AU 1998-60503	19980130

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9860503	A	Based on	WO 9833386

PRIORITY APPLN. INFO: US 1997-36321P 19970131
AB WO 9833386 A UPAB: 19980916
Mutant Campylobacter fetus strain (A) includes a DNA cassette (EC) that encodes a heterologous protein (I). Also claimed are: (1) C. fetus (B) in which: (a) recA is mutated so that no functional RecA protein is produced; (b) DNA rearrangement permitting sapA antigenic variation occurs at very low frequency, and (c) only one of the S(**surface**)-**layer proteins** (SLP) encoded by one sapA analogue is produced; (2) mixture of C. fetus mutants (C) each: (a) containing a sapA chimaera in which a single sapA homologue is mutated to encode a different chimaeric protein representing a different heterologous antigen, and (ii) being RecA-defective by mutation, and (3) any bacterium (D) modified to express sapCDEF genes.

USE - (A)-(D) are used as **vaccines** to generate **mucosal** and systemic immune responses: (a) against (I), particularly an immunogen derived from Salmonella, C. jejuni, E. coli O157:H7, human or simian immune deficiency virus or other pathogens, or (b) against C. fetus, the causative agent of infectious abortion and/or infertility in ungulates. (D) can also be used to produce chimaeric proteins by culture. Alternatively, (I) may be a therapeutic protein.

ADVANTAGE - (B) and (C) colonise the host only briefly, i.e. until eliminated by a protective immune response.
Dwg.0/7

=> file home
FILE 'HOME' ENTERED AT 16:39:23 ON 03 NOV 2003

=>

Connecting via Winsock to Dialog

Logging in to Dialog

Trying 31060000009999...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ****
ENTER PASSWORD:
 ****
Welcome to DIALOG

Dialog level 03.05.00D

Last logoff: 24nov03 17:02:30
Logon file405 11dec03 08:29:59
           *** ANNOUNCEMENT ***
                  ***
--File 654 - US published applications from March 15, 2001 to the present are now online. Please see HELP NEWS 654 for details.

                  ***
--File 581 - The 2003 annual reload of Population Demographics is complete. Please see Help News581 for details.

                  ***
--File 990 - NewsRoom now contains February 2003 to current records. File 992 - NewsRoom 2003 archive has been newly created and contains records from January 2003. The oldest months's records roll out of File 990 and into File 992 on the first weekend of each month. To search all 2003 records BEGIN 990, 992, or B NEWS2003, a new OneSearch category.
                  ***
--Connect Time joins DialUnits as pricing options on Dialog. See HELP CONNECT for information.
                  ***
                  ***
--SourceOne patents are now delivered to your email inbox as PDF replacing TIFF delivery. See HELP SOURCE1 for more information.
                  ***
--Important news for public and academic libraries. See HELP LIBRARY for more information.
                  ***
--Important Notice to Freelance Authors--
See HELP FREELANCE for more information
                  ***
NEW FILES RELEASED
***DIOGENES: Adverse Drug Events Database (File 181)
***Emergency Room (File 454), Hospital Inpatient Profiles (File 462),
   and Hospital Outpatient Profiles (File 463)
***World News Connection (File 985)
***Dialog NewsRoom - 2003 Archive (File 992)
***TRADEMARKSCAN-Czech Republic (File 680)
***TRADEMARKSCAN-Hungary (File 681)
***TRADEMARKSCAN-Poland (File 682)
                  ***
UPDATING RESUMED

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                    ***
RELOADED
***Population Demographics -(File 581)
***CLAIMS Citation (Files 220-222)

REMOVED
                    ***

     >>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
     >>>    of new databases, price changes, etc.      <<<
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* * *                                    * * *
SYSTEM:HOME
Cost is in DialUnits
Menu System II: D2 version 1.7.9 term=ASCII
                      *** DIALOG HOMEBASE(SM) Main Menu ***

 Information:
  1.  Announcements (new files, reloads, etc.)
  2.  Database, Rates, & Command Descriptions
  3.  Help in Choosing Databases for Your Topic
  4.  Customer Services (telephone assistance, training, seminars, etc.)
  5.  Product Descriptions

 Connections:
  6.  DIALOG(R) Document Delivery
  7.  Data Star(R)

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      /H = Help            /L = Logoff          /NOMENU = Command Mode


Enter an option number to view information or to connect to an online
 service.  Enter a BEGIN command plus a file number to search a database
(e.g., B1 for ERIC).
? b 410

      11dec03 08:30:00 User267129 Session D33.1
           $0.00    0.149 DialUnits FileHomeBase
     $0.00  Estimated cost FileHomeBase
     $0.00  Estimated cost this search
     $0.00  Estimated total session cost   0.149 DialUnits

File 410:Chronolog(R)  1981-2003/Dec
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      Set  Items  Description
      ---  -----  -----------
? set hi ;set hi
HILIGHT set on as ''
HILIGHT set on as ''
? b biotech,35,91,98,135,164,467
       11dec03 08:30:33 User267129 Session D33.2
            $0.00    0.072 DialUnits File410
     $0.00  Estimated cost File410
     $0.13  TELNET
     $0.13  Estimated cost this search
     $0.13  Estimated total session cost   0.221 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File   5:Biosis Previews(R)  1969-2003/Dec W1
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File 98:General Sci Abs/Full-Text 1984-2003/Oct
(c) 2003 The HW Wilson Co.
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/Oct
(c) 2003 The HW Wilson Co.
File 135:NewsRx Weekly Reports 1995-2003/Nov W5
(c) 2003 NewsRx
*File 135: New newsletters are now added. See Help News135 for the
complete list of newsletters.
File 143:Biol. & Agric. Index 1983-2003/Oct
(c) 2003 The HW Wilson Co
File 144:Pascal 1973-2003/Nov W5
(c) 2003 INIST/CNRS
File 155:MEDLINE(R) 1966-2003/Nov W4
(c) format only 2003 The Dialog Corp.
*File 155: Medline has temporarily stopped updating with
Completed records (Nov 2003). Please see HELP NEWS 154 for details.
File 172:EMBASE Alert 2003/Dec W1
(c) 2003 Elsevier Science B.V.
File 266:FEDRIP 2003/Oct
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File 315:ChemEng & Biotec Abs 1970-2003/Nov
(c) 2003 DECHEMA
File 357:Derwent Biotech Res. 1982-2003/Dec W3
(c) 2003 Thomson Derwent & ISI
*File 357: File is now current. See HELP NEWS 357.
Alert feature enhanced for multiple files, etc. See HELP ALERT.
File 358:Current BioTech Abs 1983-2003/Nov
(c) 2003 DECHEMA
File 369:New Scientist 1994-2003/Nov W5
(c) 2003 Reed Business Information Ltd.
File 370:Science 1996-1999/Jul W3
(c) 1999 AAAS
*File 370: This file is closed (no updates). Use File 47 for more current
information.
File 399:CA SEARCH(R) 1967-2003/UD=13924
(c) 2003 American Chemical Society
*File 399: Use is subject to the terms of your user/customer agreement.
Alert feature enhanced for multiple files, etc. See HELP ALERT.
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
(c) 1998 Inst for Sci Info
File 35:Dissertation Abs Online 1861-2003/Oct
(c) 2003 ProQuest Info&Learning
File 91:MANTIS(TM) 1880-2002/Dec
2003 (c) Action Potential
File 164:Allied & Complementary Medicine 1984-2003/Dec
(c) 2003 BLHCIS
File 467:ExtraMED(tm) 2000/Dec

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*File 467: For information about updating status please see Help News467.

      Set  Items  Description
      ---  -----  -----------
? s immunostimulant? and (polycationic or "cationic adj pluronic?")
           29341  IMMUNOSTIMULANT?
            5364  POLYCATIONIC
               0  CATIONIC ADJ PLURONIC?
      S1      17  IMMUNOSTIMULANT? AND (POLYCATIONIC OR "CATIONIC ADJ
                  PLURONIC?")
? s s1 and pharmaceutical
              17  S1
          518985  PHARMACEUTICAL
      S2       7  S1 AND PHARMACEUTICAL
? s s2 and immune(N)response
               7  S2
         2480390  IMMUNE
         6018528  RESPONSE
          453515  IMMUNE(N)RESPONSE
      S3       2  S2 AND IMMUNE(N)RESPONSE
? s (s2 or s3) and microsphere
               7  S2
               2  S3
           43569  MICROSPHERE
      S4       0  (S2 OR S3) AND MICROSPHERE
? s2 and s3
        20363057  2
               2  S3
      S5       1  2 AND S3
? s s2 and s3
               7  S2
               2  S3
      S6       2  S2 AND S3
? ds

Set     Items   Description
S1         17   IMMUNOSTIMULANT? AND (POLYCATIONIC OR "CATIONIC ADJ PLURON-
             IC?")
S2          7   S1 AND PHARMACEUTICAL
S3          2   S2 AND IMMUNE(N)RESPONSE
S4          0   (S2 OR S3) AND MICROSPHERE
S5          1   2 AND S3
S6          2   S2 AND S3
? t s2/medium,k/1-7
>>>KWIC option is not available in file(s): 399

 2/K/1      (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.
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0309211  DBR Accession No.: 2003-10996    PATENT
Method of loading biological material e.g. antisense RNA into liposomes,
    comprises drying suspension of liposome-forming lipids, and hydrating
    dry composition obtained with an aqueous solution of the material to be
    trapped in the liposomes - liposome-mediated DNA, RNA and antisense
    transfer useful for nucleic acid vaccine and gene therapy
AUTHOR: BARENHOLZ Y;  KEDAR E
PATENT ASSIGNEE: YISSUM RES DEV CO HEBREW UNIV JERUSALEM  2003
PATENT NUMBER: WO 2003000227  PATENT DATE: 20030103  WPI ACCESSION NO.:
    2003-229317  (200322)
PRIORITY APPLIC. NO.: US 300065  APPLIC. DATE: 20010625
```

NATIONAL APPLIC. NO.: WO 2002IL506 APPLIC. DATE: 20020625
LANGUAGE: English

...ABSTRACT: LFL. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) a combination (I) of two **pharmaceutical** compositions comprising: (a) a first **pharmaceutical** of a dry LFL or a dry mixture of LFL; and (b) a second **pharmaceutical** composition of biological material, where the combination is useful in the preparation of a **pharmaceutical** composition comprising liposomes loaded with the biological material; and (2) a **pharmaceutical** formulation (II) comprising as active ingredient a therapeutic amount of liposomes loaded with a biological...

... liposomes are prepared by (M). WIDER DISCLOSURE - Also disclosed is a package for preparing a ***pharmaceutical*** composition. BIOTECHNOLOGY - Preferred Method: The LFL comprises phospholipid, lipopolymers, cationic lipids, sphingolipids or a combination...

...2-dioleoyl-3-trimethylammonium propane (DOTAP), 1,2-distearoyl-3-trimeth ylammonium propane (DSTAP), or a **polycationic** lipid which is a spermine-based N-(2-((2,5-bis((3-aminopropyl)amino)-1...

... the form of a package. (I) further comprises instructions for using the first and second **pharmaceutical** compositions for the preparation of the **pharmaceutical** formulation, the instructions comprising hydrating the dry liposome-forming lipid of the first composition with ...

...composition to obtain liposomes loaded with the biological material, and instructions prescribing administration of the **pharmaceutical** formulation thus obtained to a subject in need. (I) also comprises a physiologically aqueous medium and/or sterile water for forming the solution of biological material. ACTIVITY - ***Immunostimulant*** . MECHANISM OF ACTION - Vaccine; Gene therapy. Liposomal trivalent influenza subunit (HN) vaccine was administered once...
DESCRIPTORS: ...cell, liposome, encapsulation, loading, solubilization, drying, lyophilization, appl. gene therapy, nucleic acid vaccine lipofection transfection **immunostimulant** (22, 18)

2/K/2 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0308582 DBR Accession No.: 2003-10367 PATENT
New oligodeoxynucleic acid molecules useful for the preparation of vaccine - oligonucleotide molecule for use in vaccine and gene therapy
AUTHOR: LINGNAU K; SCHELLACK C; SCHMIDT W
PATENT ASSIGNEE: INTERCELL BIOMEDIZINISCHE FORSCHUNGS; CISTEM BIOTECHNOLOGIES GMBH 2002
PATENT NUMBER: WO 200295027 PATENT DATE: 20021128 WPI ACCESSION NO.: 2003-183880 (200318)
PRIORITY APPLIC. NO.: AT 2001805 APPLIC. DATE: 20010521
NATIONAL APPLIC. NO.: WO 2002EP5448 APPLIC. DATE: 20020517
LANGUAGE: English

...ABSTRACT: deoxyuridine-monophosphate or -monothiophosphate; w = a or t; and d = a, g or t. ACTIVITY - ***Immunostimulant*** . MECHANISM OF ACTION - Vaccine. USE - For vaccine preparation (claimed) for vaccination of animals (preferably humans...

... and 0.1 - 1000 microg respectively per vaccination. ADVANTAGE - ODN

provides safe and well-tolerable **pharmaceutical** compositions with efficient immunostimulatory properties. ODNs containing deoxyuridine residues (U-ODN) exhibits a comparable immunostimulatory...
DESCRIPTORS: oligonucleotide molecule, antigen, cathelicidin-derived peptide, human somatotropin, cytokine, **polycationic** polymer comp., appl. nucleic acid vaccine, gene therapy animal mammal protein hormone **immunostimulant** (22, 17)

2/K/3 (Item 3 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0304292 DBR Accession No.: 2003-06077 PATENT
New peptide, useful for the manufacture of a medicament or vaccine against a condition caused by a defect and/or a deficiency in a gene - vector-mediated recombinant protein gene transfer and expression in host cell for use in gene therapy, recombinant vaccine and nucleic acid vaccine preparation
AUTHOR: HART S L; WRITER M
PATENT ASSIGNEE: ICH PRODN LTD 2002
PATENT NUMBER: WO 200272616 PATENT DATE: 20020919 WPI ACCESSION NO.: 2003-018728 (200301)
PRIORITY APPLIC. NO.: GB 20016315 APPLIC. DATE: 20010314
NATIONAL APPLIC. NO.: WO 2002GB1215 APPLIC. DATE: 20020314
LANGUAGE: English

...ABSTRACT: viral transfection complex that comprises: (i) a nucleic acid; (ii) a lipid component; (iii) a **polycationic** nucleic acid-binding component; and (iv) a cell surface receptor binding component comprising the peptide...

... for producing a complex; (4) a mixture comprising a cell surface receptor-binding component, a **polycationic** nucleic-acid binding component and a lipid component; (5) transfecting a cell with a nucleic acid; (6) a **pharmaceutical** composition comprising the complex in admixture or in conjunction with a carrier; (7) treatment or...

...for use in a non-viral transfection vector complex. A-B-C (P1) where A = **polycationic** nucleic acid-binding component; B = spacer element; C = peptide. BIOTECHNOLOGY - Preferred Peptide: The peptide also...

... disulfide bonds. The peptide is linked via a disulfide bond or spacer element to a **polycationic** nucleic acid-binding component, particularly polyethylenimine or an oligolysine molecule having 5 - 25 lysine groups...

... component, the peptide as the cell surface receptor-binding component and (K)16 as the ***polycationic*** nucleic acid-binding component. The nucleic acid component is or relates to a gene that...

... 3 parts by weight DOSPA. The ratio lipid component: the cell surface receptor-binding component/**polycationic** nucleic-binding component: nucleic acid is 0.75:4:1 by weight or 0.5...

... component, the peptide as the cell surface receptor-binding component and (K)16 as the ***polycationic*** nucleic acid-binding component. Preferred Method: The process for producing a complex comprises admixing components...

...The components are admixed in the following order: lipid component, cell surface receptor-binding component/**polycationic** nucleic

acid-binding component and nucleic acid. The process further comprises incorporating the nucleic acid...

... enzyme linked immunosorbant assay (ELISA). Preparation: The peptide is produced by standard recombinant techniques. ACTIVITY - ***Immunostimulant*** . MECHANISM OF ACTION - Vaccine; Antisense gene therapy. No biological data is given. USE - The complex...

2/K/4 (Item 4 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0288942 DBR Accession No.: 2002-10789 PATENT
Pharmaceutical composition for the preparation of vaccine comprises T cell epitope(s) or its mixture, **polycationic** peptide and nucleic acid based on inosine and cytosine - composition containing T-lymphocyte antigen, peptide and DNA **immunostimulant**
AUTHOR: EGYED A; LINGNAU K; MATTNER F; BUSCHLE M; SCHMIDT W
PATENT ASSIGNEE: CISTEM BIOTECHNOLOGIES GMBH 2001
PATENT NUMBER: WO 200193903 PATENT DATE: 20011213 WPI ACCESSION NO.: 2002-205813 (200226)
PRIORITY APPLIC. NO.: AT 20001000 APPLIC. DATE: 20000608
NATIONAL APPLIC. NO.: WO 2001EP6437 APPLIC. DATE: 20010607
LANGUAGE: English

Pharmaceutical composition for the preparation of vaccine comprises T cell epitope(s) or its mixture, **polycationic** peptide and nucleic acid based on inosine and cytosine - composition containing T-lymphocyte antigen, peptide and DNA **immunostimulant**
ABSTRACT: DERWENT ABSTRACT: NOVELTY - A **pharmaceutical** composition comprising a T cell epitope(s) (I) or its mixture, a **polycationic** peptide (II) and a nucleic acid (III) based on inosine and cytosine, is new. DETAILED...
... for vaccination comprising a component containing (I) and (II) and a component containing (III). ACTIVITY - ***Immunostimulant*** . MECHANISM OF ACTION - Vaccine. A group of mice (4 mice) was injected into each hind...

2/K/5 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

136036339 CA: 136(3)36339h PATENT
Immunostimulatory oligodeoxynucleotides in vaccines
INVENTOR(AUTHOR): Schmidt, Walter; Lingnau, Karen; Schellack, Carola; Egyed, Alena
LOCATION: Austria
ASSIGNEE: Cistem Biotechnologies Gmbh
PATENT: PCT International ; WO 200193905 A1 DATE: 20011213
APPLICATION: WO 2001EP6433 (20010607) *AT 20001000 (20000608) *AT 20001973 (20001123)
PAGES: 52 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-039/39A; C07H-021/04B DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ ; SD; SL; SZ; TZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE;

SN; TD; TG

2/K/6 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

134285564 CA: 134(20)285564g PATENT
Pharmaceutical composition comprising an antigen
INVENTOR(AUTHOR): Fleitmann, Julia-Kristina; Mattner, Frank; Buschle, Michael; Melling, Jack
LOCATION: Austria
ASSIGNEE: Cistem Biotechnologies G.m.b.H.
PATENT: PCT International ; WO 200124822 A2 DATE: 20010412
APPLICATION: WO 2000EP9657 (20001002) *AT 991680 (19991001)
PAGES: 20 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-039/39A; A61P-031/00B; A61P-035/00B; A61P-037/00B DESIGNATED COUNTRIES: AU; BR; CA; CN; CZ; HU; ID; IN; IS; JP; KR; MX; NO; NZ; PL; SG; SK; US; ZA; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: AT; BE; CH; CY; DE; DK; ES; FI ; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE

2/K/7 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

115015574 CA: 115(2)15574g PATENT
Solid vaccine composition containing antigen, saponin, and polycationic adjuvant
INVENTOR(AUTHOR): Moss, Bernard Anthony; Aston, Roger; Cowden, William Bulter
LOCATION: Australia
ASSIGNEE: Peptide Technology Ltd.
PATENT: PCT International ; WO 9104052 A1 DATE: 910404
APPLICATION: WO 90GB1459 (900921) *GB 8921470 (890922)
PAGES: 41 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-039/39A; A61K-039/00B; A61K-009/14B; A61K-009/20B DESIGNATED COUNTRIES: AU; CA; FI; JP; NO; US DESIGNATED REGIONAL: AT; BE; CH; DE; DK; ES; FR; GB; IT; LU; NL ; SE
? t s3/medium,k/all
>>>KWIC option is not available in file(s): 399

3/K/1 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0308582 DBR Accession Number: 2003-10367 PATENT
New oligodeoxynucleic acid molecules useful for the preparation of vaccine - oligonucleotide molecule for use in vaccine and gene therapy
AUTHOR: LINGNAU K; SCHELLACK C; SCHMIDT W
PATENT ASSIGNEE: INTERCELL BIOMEDIZINISCHE FORSCHUNGS; CISTEM BIOTECHNOLOGIES GMBH 2002
PATENT NUMBER: WO 200295027 PATENT DATE: 20021128 WPI ACCESSION NO.: 2003-183880 (200318)
PRIORITY APPLIC. NO.: AT 2001805 APPLIC. DATE: 20010521
NATIONAL APPLIC. NO.: WO 2002EP5448 APPLIC. DATE: 20020517
LANGUAGE: English

...ABSTRACT: deoxyuridine-monophosphate or -monothiophosphate; w = a or t; and d = a, g or t. ACTIVITY - ***Immunostimulant*** . MECHANISM OF ACTION - Vaccine. USE - For vaccine preparation (claimed) for vaccination of animals (preferably humans...

... and 0.1 - 1000 microg respectively per vaccination. ADVANTAGE - ODN provides safe and well-tolerable **pharmaceutical** compositions with efficient immunostimulatory properties. ODNs containing deoxyuridine residues (U-ODN) exhibits a comparable immunostimulatory...
...ODNs with the antigen strongly increases the potential of the antigen to raise the protection/**immune response** of the vaccinated individual. The antigen used in the composition serves to tolerize the immune...
DESCRIPTORS: oligonucleotide molecule, antigen, cathelicidin-derived peptide, human somatotropin, cytokine, **polycationic** polymer comp., appl. nucleic acid vaccine, gene therapy animal mammal protein hormone **immunostimulant** (22, 17)

3/K/2 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0288942 DBR Accession No.: 2002-10789 PATENT
Pharmaceutical composition for the preparation of vaccine comprises T cell epitope(s) or its mixture, **polycationic** peptide and nucleic acid based on inosine and cytosine - composition containing T-lymphocyte antigen, peptide and DNA **immunostimulant**
AUTHOR: EGYED A; LINGNAU K; MATTNER F; BUSCHLE M; SCHMIDT W
PATENT ASSIGNEE: CISTEM BIOTECHNOLOGIES GMBH 2001
PATENT NUMBER: WO 200193903 PATENT DATE: 20011213 WPI ACCESSION NO.: 2002-205813 (200226)
PRIORITY APPLIC. NO.: AT 20001000 APPLIC. DATE: 20000608
NATIONAL APPLIC. NO.: WO 2001EP6437 APPLIC. DATE: 20010607
LANGUAGE: English

Pharmaceutical composition for the preparation of vaccine comprises T cell epitope(s) or its mixture, **polycationic** peptide and nucleic acid based on inosine and cytosine - composition containing T-lymphocyte antigen, peptide and DNA **immunostimulant**
ABSTRACT: DERWENT ABSTRACT: NOVELTY - A **pharmaceutical** composition comprising a T cell epitope(s) (I) or its mixture, a **polycationic** peptide (II) and a nucleic acid (III) based on inosine and cytosine, is new. DETAILED...
... for vaccination comprising a component containing (I) and (II) and a component containing (III). ACTIVITY - ***Immunostimulant*** . MECHANISM OF ACTION - Vaccine. A group of mice (4 mice) was injected into each hind...

... the patient by weekly, bi-weekly or monthly intervals. ADVANTAGE - The composition induces a systemic ***immune*** ***response*** . The combination of (II) and (III) with (I) shows synergistic effect in immunostimulation. (45 pages)
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